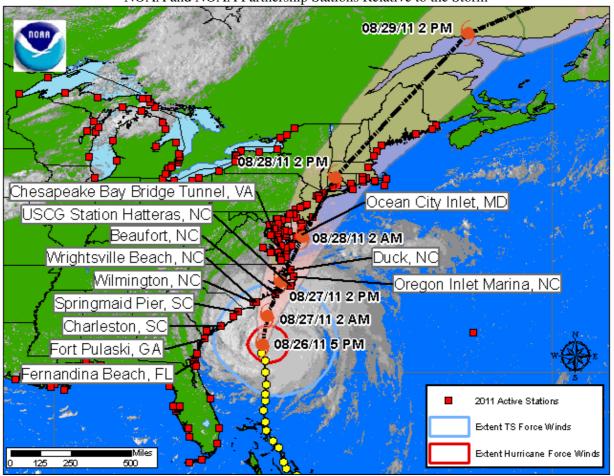


NOAA and NOAA Partnership Stations Relative to the Storm



### Storm Analysis

As of 08/26/2011 18:00 EDT, water levels at stations from northeastern Florida to southern North Carolina are elevated between 0.75 and 2.0 feet above predicted tide levels. Water levels along the North Carolina coast are beginning to rise. Levels along the Atlantic coast of Virginia and Maryland as well as the entrance to the Chesapeake Bay remain at or near predicted. Winds are generally increasing From Georgia to the Carolinas, especially at Wrightsville Beach, NC and Springmaid Pier, SC where sustained winds of 40 kts and gusts over 50 kts have been measured over the past few hours. Barometric pressure continues to fall accross the region.

Water Level and Meteorological plots available below are updated automatically. Water level predictions relative to <u>Mean Lower Low Water</u> are:

Charleston SC: Next predicted high tides are 6.26 ft (1.91 m) at 08/26/2011 18:27 EDT and 5.47 ft (1.67 m) at 08/27/2011 06:50 EDT.

Springmaid Pier, SC: Next predicted high tides are 5.33 ft (1.62 m) at 08/27/2011 06:21 EDT and 6.31 ft (1.92 m) at 08/27/2011 18:40 EDT.

Wrightsville Beach, NC: Next predicted high tides are 4.16 ft (1.27 m) at 08/27/2011 06:20 EDT. and 4.98 ft (1.52 m) at 08/27/2011 18:44 EDT.

Wilmington, NC: Next predicted high tides are 4.81 ft (1.47 m) at 08/26/2011 20:14 EDT and 4.41 ft (1.34 m) at 08/27/2011 08:37 EDT.

Beaufort, NC: Next predicted high tides are 3.77 ft (1.15 m) at 08/26/2011 18:27 EDT and 3.27 ft (1.00 m) at 08/27/2011 06:45 EDT.

USCG Station Hatteras, NC: Next predicted high tides are 0.55 ft (0.17 m) at 08/26/2011 19:26 EDT and 0.65 ft (0.20 m) at 08/27/2011 07:47 EDT.

Oregon Inlet Marina, NC: Next predicted high tides are 1.39 ft (0.42 m) at 08/26/2011 18.31 EDT and 1.22 ft (0.37 m) at 08/27/2011 06:52 EDT.

Duck, NC: Next predicted high tides are 3.49 ft (1.06 m) at 08/27/2011 06:22 EDT and 4.16 ft (1.27 m) at 08/27/2011 18:44 EDT.

Chesapeake Bay Bridge Tunnel, VA: Next predicted high tides are 3.12 ft (0.95 m) at 08/26/2011 18:47 EDT and 2.82 ft (0.86 m) at 08/27/2011 07:13 EDT.

Ocean City Inlet, MD: Next predicted high tides are 2.59 ft (0.79 m) at 08/26/2011 18:45 EDT and 2.21 ft (0.67 m) at 08/27/2011 06:50 EDT.

Fort Pulaski, GA: Next predicted high tides are 8.04 ft (2.45 m) at 08/26/2011 18:35 EDT and 7.18 ft (2.19 m) at 08/27/2011 07:00 EDT.

Fernandina Beach, FL: Next predicted high tides are 6.99 ft (2.13 m) at 08/26/2011 19:25 EDT and 6.26 ft (1.91 m) at 08/27/2011 07:45 EDT.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For information on Highest Astronomical Tide (HAT), NAVD88 and other datums, please see <u>Tidal Datums</u>. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst:PFF			

#### SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

HURRICANE IRENE ADVISORY NUMBER 26

500 PM EDT FRI AUG 26 2011

...LARGE HURRICANE IRENE HEADING TOWARD THE EAST COAST OF THE UNITED STATES...HURRICANE WARNING EXTENDED NORTHWARD INTO SOUTHERN NEW ENGLAND....

#### WATCHES AND WARNINGS

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A HURRICANE WARNING IS IN EFFECT FOR...

\* LITTLE RIVER INLET NORTH CAROLINA NORTHWARD TO SAGAMORE BEACH MASSACHUSETTS...INCLUDING THE PAMLICO...ALBEMARLE...AND CURRITUCK SOUNDS...DELAWARE BAY...CHESAPEAKE BAY SOUTH OF DRUM POINT...NEW YORK CITY...LONG ISLAND...LONG ISLAND SOUND...COASTAL CONNECTICUT AND RHODE ISLAND...BLOCK ISLAND...MARTHAS VINEYARD AND NANTUCKET.

A TROPICAL STORM WARNING IS IN EFFECT FOR...

- \* NORTH OF EDISTO BEACH SOUTH CAROLINA TO LITTLE RIVER INLET
- \* CHESAPEAKE BAY FROM DRUM POINT NORTHWARD AND THE TIDAL POTOMAC
- \* NORTH OF SAGAMORE BEACH TO MERRIMACK RIVER

A TROPICAL STORM WATCH IS IN EFFECT FOR...

\* MERRIMACK RIVER TO EASTPORT MAINE

INTERESTS IN SOUTHEASTERN CANADA SHOULD MONITOR THE PROGRESS OF IRENE.

FOR STORM INFORMATION SPECIFIC TO YOUR AREA...INCLUDING POSSIBLE INLAND WATCHES AND WARNINGS...PLEASE MONITOR PRODUCTS ISSUED BY YOUR LOCAL NATIONAL WEATHER SERVICE FORECAST OFFICE.

#### **DISCUSSION AND 48-HOUR OUTLOOK**

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AT 500 PM EDT THE CENTER OF HURRICANE IRENE WAS LOCATED ABOUT 265 MI SSW OF CAPE HATTERAS NORTH CAROLINA. IRENE IS MOVING TOWARD THE NORTH NEAR 14 MPH. A TURN TOWARD THE NORTH-NORTHEAST IS EXPECTED TONIGHT OR EARLY SATURDAY. ON THE FORECAST TRACK...THE CORE OF THE HURRICANE WILL APPROACH THE COAST OF NORTH CAROLINA TONIGHT AND PASS NEAR OR OVER THE NORTH CAROLINA COAST ON SATURDAY. THE HURRICANE IS FORECAST TO MOVE NEAR OR OVER THE MID-ATLANTIC COAST SATURDAY NIGHT AND MOVE OVER SOUTHERN NEW ENGLAND ON SUNDAY.

MAXIMUM SUSTAINED WINDS ARE NEAR 100 MPH WITH HIGHER GUSTS. IRENE IS A CATEGORY TWO HURRICANE ON THE SAFFIR-SIMPSON HURRICANE WIND SCALE. LITTLE CHANGE IN STRENGTH IS FORECAST BEFORE IRENE REACHES THE COAST OF NORTH CAROLINA. SOME WEAKENING IS EXPECTED AFTER THAT...BUT IRENE IS EXPECTED TO REMAIN A HURRICANE AS IT MOVES ALONG THE MID-ATLANTIC COAST ON SUNDAY.

IRENE IS A LARGE TROPICAL CYCLONE. HURRICANE FORCE WINDS EXTEND OUTWARD UP TO 90 MILES FROM THE CENTER...AND TROPICAL STORM FORCE WINDS EXTEND OUTWARD UP TO 290 MILES. NOAA BUOY 41013 LOCATED ABOUT 40 MILES SOUTHEAST OF SOUTHPORT NORTH CAROLINA RECENTLY REPORTED A SUSTAINED WIND OF 46 MPH AND A GUST TO 60 MPH.

THE ESTIMATED MINIMUM CENTRAL PRESSURE IS 951 MB...28.08 INCHES.

#### HAZARDS AFFECTING LAND

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WIND...TROPICAL STORM FORCE WINDS WILL SPREAD OVER THE SOUTHERN PORTION OF

THE WARNING AREA DURING THE NEXT FEW HOURS. HURRICANE FORCE WINDS ARE EXPECTED TO FIRST REACH THE HURRICANE WARNING AREA OVERNIGHT TONIGHT. TROPICAL STORM FORCE WINDS ARE EXPECTED TO BEGIN ALONG THE MID-ATLANTIC COAST OVERNIGHT WITH HURRICANE CONDITIONS EXPECTED BY SATURDAY AFTERNOON. TROPICAL STORM CONDITIONS ARE EXPECTED TO REACH SOUTHERN NEW ENGLAND SATURDAY NIGHT WITH HURRICANE CONDITIONS EXPECTED ON SUNDAY.

STORM SURGE...AN EXTREMELY DANGEROUS STORM SURGE WILL RAISE WATER LEVELS BY AS MUCH AS 6 TO 11 FEET ABOVE GROUND LEVEL IN THE HURRICANE WARNING AREA IN NORTH CAROLINA...INCLUDING THE ALBEMARLE AND PAMLICO SOUNDS. STORM SURGE WILL RAISE WATER LEVELS BY AS MUCH AS 4 TO 8 FEET ABOVE GROUND LEVEL WITHIN THE HURRICANE WARNING AREA FROM THE NORTH CAROLINA/VIRGINIA BORDER NORTHWARD TO CAPE COD INCLUDING SOUTHERN PORTIONS OF THE CHESAPEAKE BAY AND ITS TRIBUTARIES. NEAR THE COAST...THE SURGE WILL BE ACCOMPANIED BY LARGE...DESTRUCTIVE...AND LIFE-THREATENING WAVES. STORM SURGE VALUES ARE VERY LOCATION-SPECIFIC...AND USERS ARE URGED TO CONSULT PRODUCTS ISSUED BY THEIR LOCAL NATIONAL WEATHER SERVICE OFFICES.

RAINFALL...IRENE IS EXPECTED TO PRODUCE RAINFALL ACCUMULATIONS OF 6 TO 10 INCHES...WITH ISOLATED MAXIMUM AMOUNTS OF 15 INCHES...FROM EASTERN NORTH CAROLINA NORTHWARD THROUGH THE MID-ATLANTIC STATES INTO NEW ENGLAND THROUGH MONDAY MORNING. THESE RAINS COULD CAUSE WIDESPREAD FLOODING AND LIFE-THREATENING FLASH FLOODS.

SURF...LARGE SWELLS GENERATED BY IRENE ARE AFFECTING PORTIONS OF THE COAST OF THE SOUTHEASTERN UNITED STATES. THESE SWELLS WILL CAUSE LIFE-THREATENING SURF AND RIP CURRENT CONDITIONS.

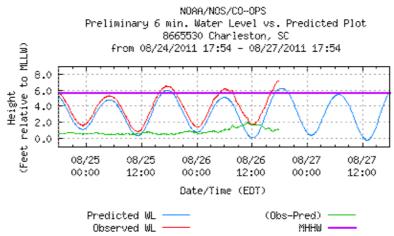
TORNADOES...ISOLATED TORNADOES ARE POSSIBLE OVER EXTREME EASTERN NORTH CAROLINA LATE TONIGHT AND SATURDAY.

FORECASTER BROWN/CANGIALOSI

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: Charleston - Water Level, Charleston - Winds, Springmaid Pier - Water Level, Springmaid Pier - Winds, Wrightsville Beach - Water Level, Wrightsville Beach - Winds, Wrightsville Beach - Barometric, Wilmington - Water Level, Beaufort - Water Level, Beaufort - Winds, Beaufort - Barometric, Beaufort - Air/Water Temp, USCG Station Hatteras - Water Level, USCG Station Hatteras - Winds, Oregon Inlet Marina - Water Level, Oregon Inlet Marina - Water Level, Duck - Winds, Duck - Barometric, Duck - Air/Water Temp, Chesapeake Bay Bridge Tunnel - Water Level, Chesapeake Bay Bridge Tunnel - Winds, Ocean City Inlet - Water Level, Fort Pulaski - Water Level, Fort Pulaski - Barometric, Fernandina Beach - Water Level, Fernandina Beach - Winds,

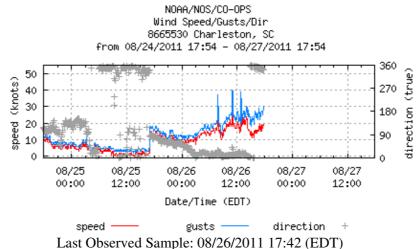
## Charleston, SC - Return to List



Last Observed Sample: 08/26/2011 17:42 (EDT)

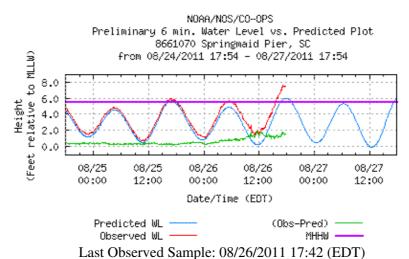
Relative to MLLW: Observed: 7.18 ft. Predicted: 6.10 ft. Residual: 1.08 ft. Historical Maximum Water Level: Sep 21 1989, 6.76 ft. above MHHW

## Charleston, SC - Return to List



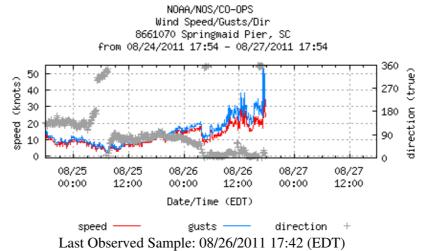
Wind Speed: 19 knots Gusts: 30 knots Direction: 343° T

## Springmaid Pier, SC - Return to List



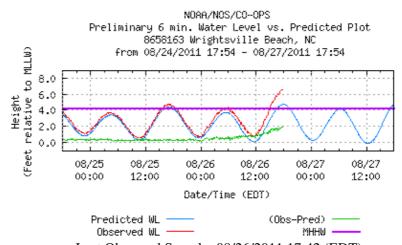
Relative to MLLW: Observed: 7.52 ft. Predicted: 6.01 ft. Residual: 1.51 ft. Historical Maximum Water Level: Jan 1 1987, 3.65 ft. above MHHW

## Springmaid Pier, SC - Return to List



Wind Speed: 24 knots Gusts: 30 knots Direction: 9° T

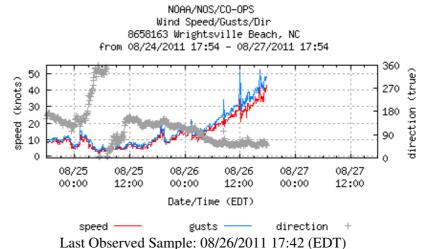
### Wrightsville Beach, NC - Return to List



Last Observed Sample: 08/26/2011 17:42 (EDT)
Relative to MLLW: Observed: 6.57 ft. Predicted: 4.72 ft. Residual: 1.85 ft.

Historical Maximum Water Level: Sep 25 2008, 2.81 ft. above MHHW

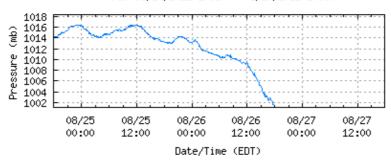
## Wrightsville Beach, NC - Return to List



Wind Speed: 43 knots Gusts: 48 knots Direction: 50° T

### Wrightsville Beach, NC - Return to List

NOAA/NOS/CO-OPS
Barometric Pressure Plot
8658163 Wrightsville Beach, NC
from 08/24/2011 17:54 - 08/27/2011 17:54



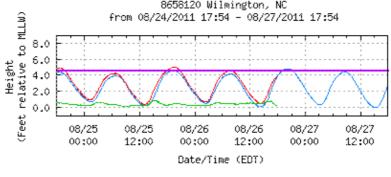
barometric pressure ----

Last Observed Sample: 08/26/2011 17:42 (EDT)

Barometric Pressure: 1001.6 mb

## Wilmington, NC - Return to List

NOAA/NOS/CO-OPS Preliminary 6 min. Water Level vs. Predicted Plot 8658120 Wilmington, NC from 08/24/2011 17:54 – 08/27/2011 17:54



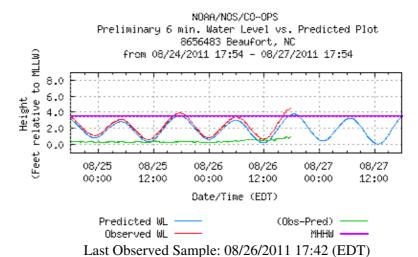
Predicted WL

Observed WL — MHHW ——
Last Observed Sample: 08/26/2011 17:42 (EDT)

(Obs-Pred)

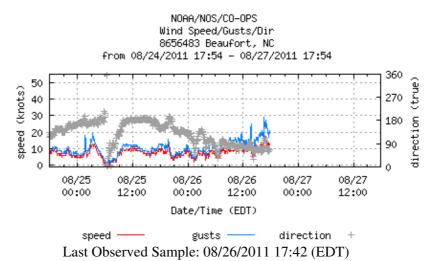
Relative to MLLW: Observed: 3.81 ft. Predicted: 3.63 ft. Residual: 0.18 ft. Historical Maximum Water Level: Oct 15 1954, 3.47 ft. above MHHW

### Beaufort, NC - Return to List



Relative to MLLW: Observed: 4.55 ft. Predicted: 3.65 ft. Residual: 0.90 ft. Historical Maximum Water Level: Sep 16 1999, 2.74 ft. above MHHW

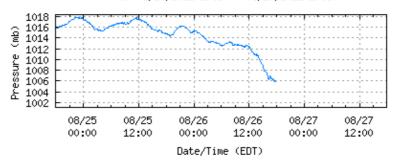
### Beaufort, NC - Return to List



Wind Speed: 12 knots Gusts: 21 knots Direction: 65° T

## Beaufort, NC - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 8656483 Beaufort, NC from 08/24/2011 17:54 - 08/27/2011 17:54

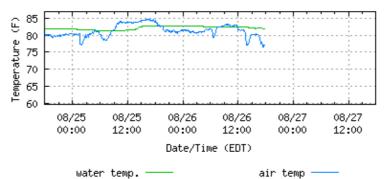


barometric pressure —— Last Observed Sample: 08/26/2011 17:42 (EDT)

Barometric Pressure: 1005.8 mb

### Beaufort, NC - Return to List

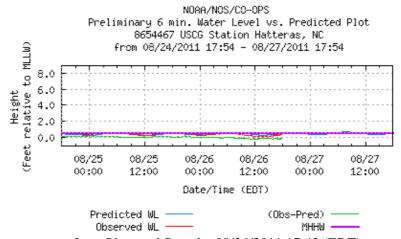
NOAA/NOS/CO-OPS Air/Water Temperature Plot 8656483 Beaufort, NC from 08/24/2011 17:54 - 08/27/2011 17:54



Last Observed Sample: 08/26/2011 17:42 (EDT)

Water Temperature: 82.0° F Air Temperature: 77.0° F

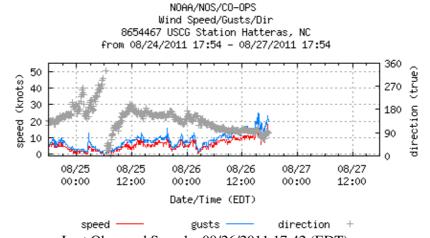
### USCG Station Hatteras, NC - Return to List



Last Observed Sample: 08/26/2011 17:42 (EDT)
Relative to MLLW: Observed: 0.30 ft. Predicted: 0.50 ft. Residual: -0.20 ft.

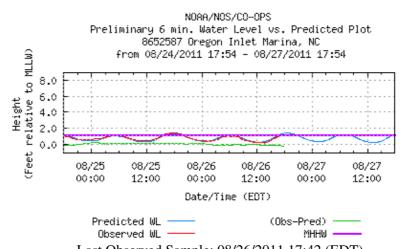
Historical Maximum Water Level: , 0 ft. above MHHW

## USCG Station Hatteras, NC - Return to List



Last Observed Sample: 08/26/2011 17:42 (EDT) Wind Speed: 12 knots Gusts: 20 knots Direction: 88° T

### Oregon Inlet Marina, NC - Return to List

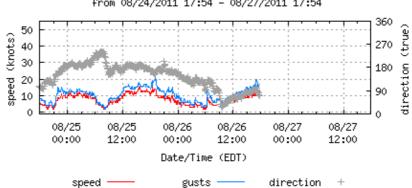


Last Observed Sample: 08/26/2011 17:42 (EDT)
Relative to MLLW: Observed: 1.07 ft. Predicted: 1.34 ft. Residual: -0.27 ft.

Historical Maximum Water Level: Sep 16 1999, 4.48 ft. above MHHW

### Oregon Inlet Marina, NC - Return to List

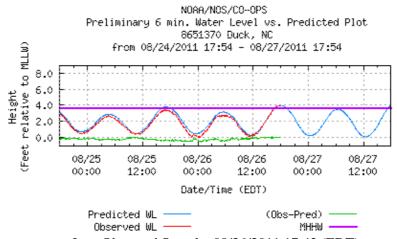
NOAA/NOS/CO-OPS Wind Speed/Gusts/Dir 8652587 Oregon Inlet Marina, NC from 08/24/2011 17:54 - 08/27/2011 17:54



Last Observed Sample: 08/26/2011 17:42 (EDT)

Wind Speed: 13 knots Gusts: 17 knots Direction: 72° T

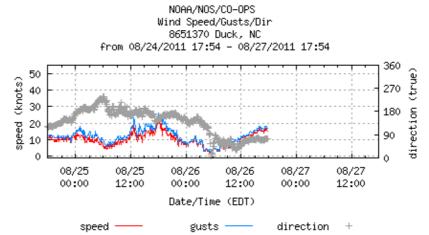
## Duck, NC - Return to List



Last Observed Sample: 08/26/2011 17:42 (EDT)

Relative to MLLW: Observed: 3.95 ft. Predicted: 3.98 ft. Residual: -0.03 ft. Historical Maximum Water Level: Aug 30 1999, 3.23 ft. above MHHW

### Duck, NC - Return to List

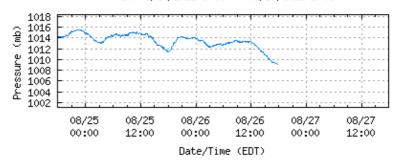


Last Observed Sample: 08/26/2011 17:42 (EDT)

Wind Speed: 15 knots Gusts: 17 knots Direction: 74° T

## Duck, NC - Return to List

NOAA/NOS/CO-OPS Barometric Pressure Plot 8651370 Duck, NC from 08/24/2011 17:54 - 08/27/2011 17:54



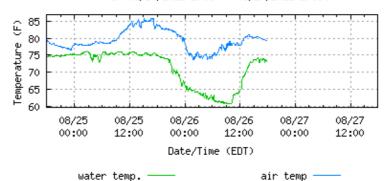
barometric pressure ----

Last Observed Sample: 08/26/2011 17:42 (EDT)

Barometric Pressure: 1009.1 mb

### Duck, NC - Return to List

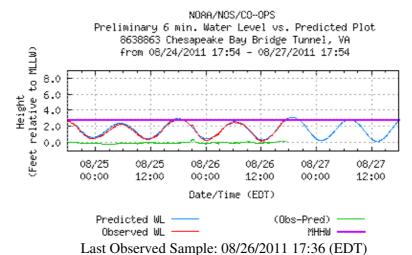
NOAA/NOS/CO-OPS Air/Water Temperature Plot 8651370 Duck, NC from 08/24/2011 17:54 - 08/27/2011 17:54



Last Observed Sample: 08/26/2011 17:42 (EDT)

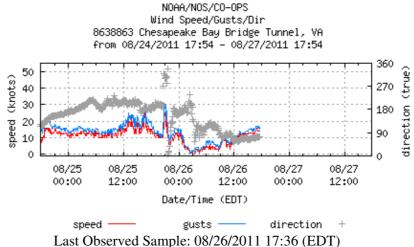
Water Temperature: 73.2° F Air Temperature: 79.5° F

## Chesapeake Bay Bridge Tunnel, VA - Return to List



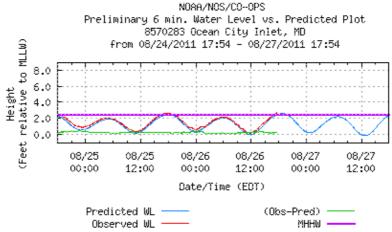
Relative to MLLW: Observed: 2.94 ft. Predicted: 2.89 ft. Residual: 0.05 ft. Historical Maximum Water Level: Feb 5 1998, 3.68 ft. above MHHW

## Chesapeake Bay Bridge Tunnel, VA - Return to List



Wind Speed: 14 knots Gusts: 15 knots Direction: 75° T

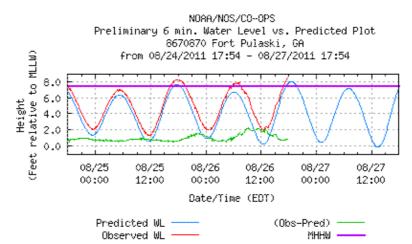
### Ocean City Inlet, MD - Return to List



Last Observed Sample: 08/26/2011 17:36 (EDT)

Relative to MLLW: Observed: 2.68 ft. Predicted: 2.44 ft. Residual: 0.24 ft. Historical Maximum Water Level: Feb 5 1998, 3.61 ft. above MHHW

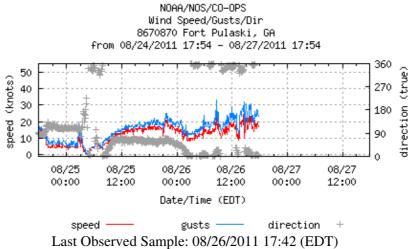
### Fort Pulaski, GA - Return to List



Last Observed Sample: 08/26/2011 17:42 (EDT)

Relative to MLLW: Observed: 8.48 ft. Predicted: 7.69 ft. Residual: 0.79 ft. Historical Maximum Water Level: Oct 15 1947, 3.4 ft. above MHHW

## Fort Pulaski, GA - Return to List



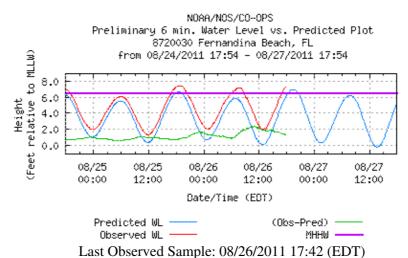
Wind Speed: 17 knots Gusts: 23 knots Direction: 4° T

## Fort Pulaski, GA - Return to List

Last Observed Sample: 08/26/2011 17:42 (EDT)

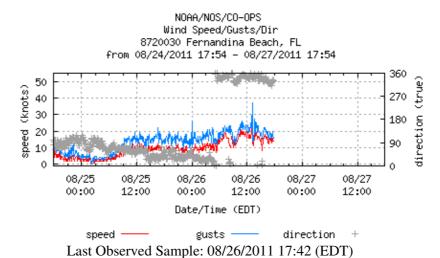
Barometric Pressure: 1004.7 mb

#### Fernandina Beach, FL - Return to List



Relative to MLLW: Observed: 7.26 ft. Predicted: 6.00 ft. Residual: 1.26 ft. Historical Maximum Water Level: Oct 2 1898, 6.94 ft. above MHHW

#### Fernandina Beach, FL - Return to List



Wind Speed: 14 knots Gusts: 16 knots Direction: 330° T

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce